(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 19 May 2005 (19.05.2005)

PCT

(10) International Publication Number WO 2005/045132 A1

(51) International Patent Classification7:

D21H 21/04

(21) International Application Number:

PCT/FI2004/000654

(22) International Filing Date:

5 November 2004 (05.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 20031614

6 November 2003 (06.11.2003)

- (71) Applicant (for all designated States except US): KEMIRA OYJ [FI/FI]; Porkkalankatu 3, FI-00180 Helsinki (FI).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KOLARI, Marko [FI/FI]; Säilätie 2 C, FI-01280 Vantaa (FI). SALKI-NOJA-SALONEN, Mirja [FI/FI]; Nastolantie 26, FI-00600 Helsinki (FI). HATUNEN, Terhi [FI/FI]; Karpalotie 3, FI-65320 Vaasa (FI).
- (74) Agent: BERGGREN OY AB; P. O. Box 16 (Jaakonkatu 3 A), FI-00101 Helsinki (FI).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A METHOD FOR MONITORING THE PRESENCE OF BIOFILM-FORMING MICROORGANISMS IN PAPER IN-**DUSTRY**

5/045132 (57) Abstract: The invention is directed to a method for detecting the presence of biofilm-forming microorganisms in a paper or board making process for determining the need of an anti-biofilm agent in the process. The method comprises the steps: (a) subjecting a sampler device in the process line for a period of time to enable said microorganisms to form a biofilm in situ in said process on the surface of the sampler, (b) optionally treating said formed biofilm in a solution of a test anti-biofilm agent for a period of time, then (c) contacting said biofilm with a liquid growth medium in a recession of a culturing device for a period of time, and (d) removing the growth solution from the recession of said device and detecting qualitatively and/or quantitatively the presence or absence of a biofilm adhered on the walls of the recession. An assembly kit is also provided.

